

THE PROMISE OF YOUTH
AND THE
PERFORMANCE OF MANHOOD,

BEING
A STATISTICAL INQUIRY INTO THE QUESTION
WHETHER SUCCESS IN THE EXAMINATION
FOR THE B.A. DEGREE AT OXFORD IS
FOLLOWED BY SUCCESS IN
PROFESSIONAL LIFE

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INTRODUCTION.

The question how far success at School and at the University is likely to be followed by success in the serious struggle of life is one of enormous practical importance. Many hundreds of thousands of pounds are spent annually in scholarships and exhibitions for the purpose of giving exceptionally able men the opportunity of securing a good education and a good chance in life. How far is this object accomplished? How far is the money wasted by passing to boys who appear abler than their fellows, merely because they have developed more rapidly, yet whose mental powers may be inferior to those of their rivals when both have increased to their utmost extent? But important as is the question in this relation, it is perhaps more important in the field of Eugenics, where any practical suggestion as to the means of securing a more rapid multiplication of the abler parts of the community must take the form of encouraging, in one way or in another, the marriages of those who have shown ability in boyhood or in early manhood. For it is to comparatively early marriages that one must look for large and healthy families, marriages of men who have not yet been tried in the fire of life, so that the only measure of their ability is the measure of their success in examinations at school and college. It is for this reason that it is important to know how far such success is a guarantee of mature ability; and as success in one's profession or occupation, though an imperfect measure of mature ability, is the only one we have, I have, in this paper, taken into consideration two professions, namely, the Bar and the Church, in which it is possible to obtain some official record of the degree of success of the various members, and dealing only with such among these as were educated at Oxford have endeavoured to determine how far officially recorded success is associated with success in the examination for the B.A. degree. In a previous paper written by Miss E. M. Elderton and myself,* we showed how the inheritance of ability from father to son can be demonstrated and to a certain extent measured by a statistical consideration of the Oxford class lists, and I shall adopt the same methods in the present paper to measure the heritage that the man receives from one who is proverbially his father, namely, himself in his boyhood.

Before going on to the description of the methods by which my tables are constructed, it will be necessary to give a short account of the history of the Oxford

* The Inheritance of Ability, *Eugenics Laboratory, Memoirs*, i. (Dulau & Co., Soho Square).

honours examinations. The following account, which is the same as that appearing in the paper above referred to, is condensed from that given on p. 191 of *The Oxford Historical Register*. It may be mentioned that practically all the people included in my tables took their degrees after the year 1830. From 1800-1806 the honours examination was conducted separately to the pass examination, the candidates were examined both in classics and mathematics, and there were two classes of honours, but during these years either very few people entered for honours or the standard was exceedingly high, for only fourteen men appear in either the first or second class. From 1807-1830 alternative subjects were introduced, namely, *Literæ Humaniores* or classics, and *Disciplinæ Mathematicæ et Physicæ* or mathematics; all candidates, whether for honours or no, were examined together, and there were in 1807-1808 two classes of honours, which were increased to three in 1809. In 1830 an extra class was added and those who were not candidates for honours were examined separately from those who were, but permission was given to the examiners to include in the fourth class honours list those candidates for the pass degree whom they thought worthy of it. This enactment came to an end in 1865, when the honours examination and the pass examination were allotted to different bodies of examiners. From 1830 onwards the four classes of honours have remained the same, although the number of subjects in which the examination is held has been greatly increased.

PART I.

THE CHURCH.

The basis of my work on this subject is Crockford's *Clerical Directory* for the year 1899. This volume is a biographical reference work of real merit ; it contains, among other valuable features, a complete list covering over 1500 large octavo pages of the clergy of the Church in England, some 35,000 in all, and about each it tells their places of education, their degrees, date of ordination, also the curacies, livings, offices and dignities which they held or have held. My plan was to select from these all those Oxonians who were ordained deacons before the year 1874, and to class them first according to their degree of success as judged by preferment in the Church, and then further to subdivide them according to whether they had obtained first, second, third or fourth class honours, or whether they had obtained a pass degree or no degree. The reason why only those who took deacons' orders before the year 1874 were included is that a certain time had to be allowed to each man to obtain preferment in, and I judged that a man who was going to rise would, at any rate, have started on his upward path before he had been a parson for twenty-five years.

In my first classification a difficulty was met at the outset, namely, where to place the rather numerous tribe who take orders without becoming professional clergymen, but accept appointments as schoolmasters, dons, and so on. This difficulty is particularly great as these men are, judged by the class-list test, very superior to the majority of the rest, so that the way in which one treats them in making the tables would have a serious influence on the results obtained. Now it appeared to me that two alternative courses were open, either to exclude them altogether, or to divide them into two classes, an upper one, containing the headmasters of public schools, of the first-class grammar schools, the heads of houses at Oxford or Cambridge, the occupants of important professorial chairs, and so on ; and a lower one, in which all the rest might be placed, namely, the headmasters of the second-class grammar schools, the assistant masters and housemasters at important schools, and all the rest who had adopted the scholastic profession without any very well-marked success in it ; and having made these, to include the former in the tables under a separate heading, and to enter the latter in the same class with the ordinary "undistinguished" parsons. The former of these alternatives was not adopted, because it is an exceedingly difficult thing to draw a hard and fast line between the pro-

fessional clergy and the clerical schoolmaster, the same man frequently changes from one group to the other and back again to the first; headmasters become bishops, and assistant masters seek the leisure of a country parish; professors are sometimes canons, and curates become schoolmasters, so that it was thought better to avoid the difficulties of drawing this distinction and to fall back on the second alternative.

It was found that after omitting all those who were not Oxonians, or who were ordained after 1874, 3508 names were left, and it was thought that this number was sufficiently large to justify a division into two portions chronologically. Those who took their degrees in or before 1859, or, if they failed to take a degree, who took deacons' orders in 1860, were included in the earlier group (I.), and the rest were taken together in the later group (II.); of the whole number 3508, 2457 were undistinguished by any preferment, they were not bishops, archdeacons, deans, canons, prebendaries or rural deans, nor were they professional schoolmasters, although some of them might have done scholastic work for short periods. These were not all classified, but to save time a sample consisting of the first 1103 in alphabetical order was taken and analysed with the following results. 529 were found to belong to Group I., of whom 7 had obtained first class honours, 42 second class, 58 third class and 57 fourth class, 352 had obtained pass degrees and 13 were not stated to have obtained degrees. 574 belonged to Group II., and of these 15 had obtained first class honours, 55 second class, 68 third class, and 44 fourth class, 367 had obtained pass degrees and 25 were not stated to have obtained degrees. In making the tables it was necessary to multiply these numbers up in the proportion of 2457/1103, so as to make them correspond with the analysis of the "distinguished" class.

It is here perhaps as well to note that I use the word distinguished in a special sense, denoting by it all those not included in the class defined and subdivided above. I do not mean to imply that they all or even the majority of them are distinguished in the usual acceptance of the word, nor that all those included in the undistinguished class were in reality undistinguished. I am perfectly well aware that a full knowledge of the work of all those included would enable one to make a far juster and more valuable classification of success than that here adopted. But as I neither possess this knowledge nor the means of acquiring it, I was obliged to adopt the test of official position as being the only one available.

In Group I., that is to say among those who took their degrees in 1859 or previously, there were 581 men who were distinguished according to the special definition of distinction given above, of these 34 were bishops, 20 deans, 39 archdeacons, 211 canons and prebendaries, 158 rural deans, 27 with first class scholastic appointments and 92 with second class scholastic appointments; in Table I A. the degrees taken by each of these classes are summarised, except that the second class scholastic group is included with the "undistinguished" parsons. It will be seen from this table, that of the 34 bishops, 8 obtained first class honours, 2 second class, 2 third class, 4 fourth class, and 18 pass degrees; of the 20 deans, 6 obtained first

class honours, 4 second class, 1 fourth class, and 9 pass degrees; of the 39 archdeacons, 2 obtained first class honours, 9 second class, 6 third class, 6 fourth class, and 16 pass degrees; of the 211 canons and prebendaries, 28 obtained first class honours, 32 second class, 42 third class, 27 fourth class, and 82 pass degrees; of the 158 rural deans, 8 obtained first class honours, 18 second class, 18 third class, 19 fourth class, 92 pass degrees, and 3 are not stated to have obtained degrees; of the 27 headmasters, heads of colleges and professors, no less than 19 obtained first class honours, 6 second class, 1 third class and 1 a pass degree; of the remaining 1271, 33 obtained first class honours, 121 second class, 148 third class, 140 fourth class, 800 pass degrees, and 29 were not stated to have obtained degrees.

If we consider the table from the other point of view it will be seen that of the 104 men who obtained first class honours in the examination for the B.A. degree, 71 or 68 per cent. obtained either some clerical distinction or some first class scholastic appointment, while of the 192 second class men, 71 or only 37 per cent. obtained this degree of success, and the percentage falls farther to 32 per cent. among the third class men, 29 per cent. among the fourth class, 21 per cent. among those who took pass degrees, and 9 per cent. among those who took no degrees. These figures show at any rate that the chance of a successful career in the Church is very markedly greater for first class men than for second class, for second class than for third, and so on; but I have adopted two methods by which one can substitute for a series of percentages, such as is given above, a single number which is to be regarded as a measure of the causal relationship between the two variable factors which we are considering, namely, success in the examination for the B.A. degree and success in the Church. The two methods to which I refer are the "Contingency Method" and the "4 Square Correlation Method" of Professor Pearson; the former of these is fully described by him in the *Drapers' Company Research Memoirs* (Biometric Series, I. "On the Theory of Contingency and its Relation to Association and Normal Correlation") and the latter "On the Correlation of Characters not Quantitatively Measurable" (*Phil. Trans.*, Vol. 195, A, pp. 1-47). Two variations of the former method give two different results, called the "Mean Square Contingency Coefficient" and the "Mean Contingency Coefficient". Professor Pearson uses the symbols C_1 and C_2 to denote these two respectively, and these symbols will be used to save space and to avoid clumsiness of expression in the present paper. The letter " r " is usually used as a symbol for the correlation coefficient. Both C_1 , C_2 and r may be considered as measures of causal relationship; they are all approximate to unity when this is complete and to nothing when this is non-existent. But when there is a partial relationship then it is only under certain circumstances that C_1 is equal to C_2 , but when this is the case both are generally equal to r ; when it is not the case, then, if the correlation method can be used, r forms the best measure of the partial causal relationship. C_1 and C_2 calculated from Table I A. are respectively .41 and .27, so the condition of agreement between

them does not obtain in the present case ; the reason of the high value of C_1 appears to lie in the fact that owing to the nature of the material some parts of the table become too finely subdivided. It will be seen that in a large number of squares the numbers contained do not reach double figures, and owing to this the value of C_1 becomes too high, so that one would prefer to rely on the values of the correlation coefficient. In order to calculate the latter it is necessary to subdivide the table by a vertical and horizontal partition into four compartments ; by doing so one divides the material in such a way that all contained above the horizontal partition have reached a higher grade of distinction in the Church than any of those below, whereas all to the left of the vertical partition have attained a higher degree of academic success than those to the right of it. In the three Tables I B., I C. and I D., those above the horizontal line are all who have attained any distinction at all in the Church or have obtained first class scholastic appointments, while those below are the "undistinguished" clergy and the second class schoolmasters and dons. A different vertical division is taken in each case ; in I B. it comes between the honours men and pass men, in I C. between the third and fourth classes and in I D. between the second and third classes. The values for r obtained are .30, .32 and .36 respectively. We shall see that the rise in the value of r as we divide the table more and more to the left is repeated in the tables dealing with the Church, Group II., and with the Bar. It is probably due to the fact that a certain number of men in the pass class were in reality at the time of degree taking quite as efficient mentally as those placed in the third and fourth classes, and thus the percentage of success among the pass men is higher than it would be if they had all been inferior to those in the fourth class. This circumstance by raising the number in the right hand top square of the correlation table reduces the value of r . If such men were transferred from the pass group to the classes in which they would have been placed had they tried for honours, then a certain number would have been transferred from the right hand top square of the table into the left hand top square and the value of r would have been raised. By shifting the vertical partition to a position between the third and fourth classes, as in Table I C., one renders it immaterial whether those men who took pass degrees, but who would have taken fourth classes had they tried for honours, are placed among the fourth class men or the pass men, and thus the value of r is raised to the same extent as if it had been possible to transfer them to Class IV. in Table I B. In the same way, shifting the vertical partition to a position between the second and third classes, as in Table I D., gives the same effect as would have been obtained by removing from the pass group not only those who would have been placed in the fourth class, but also those who would have reached the third, and putting each contingent into its proper place. Thus Table I D. gives a still higher rate for r than Table I C. ; and doubtless a still higher value would have been obtained if it had been possible to divide the Table I A. between the first and second classes, and

yet leave enough individuals in each of the squares to give a reasonably probable result. Under these circumstances I think that of the five constants calculated, C_1 , C_2 and the different values of r , most weight should be attached to the highest value of r . As will be seen when we consider Tables II A. and III A. exactly the same conclusion can be reached with regard to them, for the relative values of the five different constants obtained from Table I. are repeated in each of them.

Of Table II A. nothing much need be said; it was constructed in exactly the same way as Table I A.; of quite independent material, and contains those men who took B.A. degrees between the years 1860-1874, or, in the case of those men who are not stated to have taken degrees, who had entered deacons' orders from 1861 to 1874. From it a value for C_1 of '35 was obtained, and for C_2 of '20. Tables II B., II C. and II D. correspond exactly to Tables I B., I C. and I D., and give values for r of '24, '28 and '32. It will thus be seen that although the five constants calculated bear approximately the same relations to one another, as do the corresponding ones obtained from the earlier material, they are uniformly less, numerically. From this fact it might be argued either that intellectual merit has been recognised in the Church to a smaller extent during the last thirty years or so than formerly, or that the final examinations formed a less perfect test of such merit during the years 1860-1874 than during the preceding period. But a comparison of Tables I A. and II A. will show us that the probable explanation is different from either of these. It will be seen from Table I. that the "distinguished" number 489 out of 1760, or 27 per cent., during the earlier period, and from Table II., that during the later period they number only 346, or 19 per cent., so that we may conclude from this that twenty-five years was not long enough to allow for obtaining distinction, since the percentage of the distinguished is so much higher among those men who have spent approximately thirty-eight years or more in the Church, than among those who have only spent twenty-five to thirty-eight years, and I consider that this is probably the reason why the constants obtained from Table II. were of lower value than those calculated from Table I.

PART II.

THE BAR.

The only complete list of barristers which I could obtain, which gives their offices and achievements and which records their universities and degrees, was Joseph Foster's *Men at the Bar*, published in 1885. But the fact that this volume is out of date does not appear to me to impair its usefulness for my purpose, for if it is found that success in the schools at Oxford during the period dealt with indicated a real ability, which was afterwards rewarded by success at the Bar, it is probably as true that this is the case at the present day. Out of the list of persons contained in this work those were selected who had been educated at Oxford, and who had been called to the Bar before 1865, and had thus had twenty years of professional life in which to achieve some degree of distinction. These were then sorted according to the highest office which they had obtained. It is much to be regretted that no better criterion of distinction was available than a record of offices held, for although these offices are certainly an indication of success, yet by using them as the only test we are forced to include among the "undistinguished class" the really successful members of the junior Bar. It was found that there were in all 634 persons contained in the *Men at the Bar* who were qualified for inclusion in the tables, and I proceeded to make a somewhat detailed classification of these. In doing so much the same difficulty was encountered as in classifying the clergy, namely, that many men who were contained in the book were not practising barristers; it was met by including in the undistinguished class all of those who had not obtained real distinction in some other walk in life.

Of the 634, (I.) 6 had obtained first class appointments in political life, of whom 4 were Cabinet Ministers; (II.) 19 had obtained second class political appointments or had reached high rank in the Civil Service; (III.) 11 had become judges of the High Court or Law officers of the Crown; (IV.) 17 had become County Court judges; (V.) 38 were recorders or stipendiary magistrates; (VI.) 17 were Queen's Counsel but possessed no other office; (VII.) 18 were Indian or Colonial judges or had obtained political appointments in India or the Colonies; (VIII.) 9 held distinguished positions in the educational world; (IX.) 3 had obtained a considerable degree of fame as writers; (X.) 5 were chancellors of a diocese or vicars-general; (XI.) 8 were revising barristers. These numbers amount in all to 151, thus there were left 483 men in the "undistinguished" class.

In making the contingency table, it was not thought advisable to retain so many small groups as are enumerated above. So Group II. was joined to Group VII., Groups IV., V., X. and XI. were amalgamated, and so also were Groups VIII. and IX. The larger classes thus formed were analysed according to the position in the Oxford class lists of their members, and the results of both processes are recorded in Table III A.

It will be seen from this table that of the 92 first class men 42, or 46 per cent., attained some sort of distinction, and of the 85 second class men 28, or 33 per cent., attained the same amount; while of the 67 third class men 15, or 22 per cent., reached this grade; but after this the percentage does not sink so rapidly, there being 12 out of the 61, or 20 per cent., in the fourth class; 45 out of the 271, or 16 per cent., among the pass degree men, and 9 out of 58, or 15 per cent., among those who were not stated to have obtained a degree. The values of the statistical constants were as follows: C_1 .40, C_2 .34; and the three values of r obtained from Tables III B., III C. and III D., which correspond exactly to Tables I B. and II B., I C. and II C., I D. and II D., are respectively .31, .34 and .38.

CONCLUSIONS.

It will now be useful to institute a comparison between the results obtained from our three sources of material, and for this purpose Table IV. has been drawn up. It has been argued that the correlation coefficients obtained by dividing the original tables between the second and third classes are the most reliable, and of these the result arrived at from the earlier group of clergy is more accurate than that given by the later. If we take these things into consideration we find that success both at the Bar and in the Church has a quite well-marked causal relationship with success in the Oxford final schools, and it is probable that if a better measure of success in these professions had been available, this relationship would have been found to be still more intimate. It may be that examination success is in some cases a direct help to preferment in the Church, but it cannot be asserted that it in any way influences the solicitors on whose good opinion of a man his success at the Bar is mainly dependent. Thus any selection based on the results of a fairly searching examination of men at the age of twenty-one to twenty-three would probably be on the whole a judicious one, though no doubt mistakes would be made in a certain percentage of cases.

One point more must be referred to. It is shown in the right-hand division of Table IV., that whereas 14·5 per cent. of the barristers were placed in Class I., only 5·9 per cent. or 6·2 per cent. of the clergy reached this standard. Thus there is reason to suppose that the Bar is a profession which attracts abler men than does the Church.

TABLE I A. *Degrees taken in 1859 and earlier.*

	Honours.				Pass Degree.	No Degree.	Totals.
	Class I.	Class II.	Class III.	Class IV.			
Bishops . . .	8	2	2	4	18	—	34
Deans . . .	6	4	—	1	9	—	20
Archdeacons . .	2	9	6	6	16	—	39
Canons and Prebendaries . . .	28	32	42	27	82	—	211
Rural Deans . .	8	18	18	19	92	3	158
Scholastic, First Class .	19	6	1	—	1	—	27
Scholastic, Second Class, and Undistinguished	33	121	148	140	800	29	1271
Totals . .	104	192	217	197	1018	32	1760

$$C_1 = \cdot 41, \quad C_2 = \cdot 27.$$

TABLE I B.

	Honours, Classes I., II., III. and IV.	Pass Degree or No Degree.	Totals.
Bishops, Deans, Archdeacons, Canons, Prebendaries, Rural Deans and Scholastic, First Class	268	221	489
Scholastic, Second Class, and "Undistinguished"	442	829	1271
Totals	710	1050	1760

$$r = \cdot 30.$$

TABLE I C.

	Honours, Classes I., II. and III.	Honours, Class IV. Pass Degree or No Degree.	Totals.
Bishops, Deans, Archdeacons, Canons, Prebendaries, Rural Deans and Schol- astic, First Class	211	278	489
Scholastic, Second Class, and "Undis- tinguished"	302	969	1271
Totals	513	1247	1760

$$r = \cdot 32.$$

TABLE I D.

	Honours, Classes I. and II.	Honours, Classes II. and III. Pass Degree or No Degree.	Totals.
Bishops, Deans, Archdeacons, Canons, Prebendaries, Rural Deans and Schol- astic, First Class	142	347	489
Scholastic, Second Class, and "Undis- tinguished"	154	1117	1271
Totals	296	1464	1760

$$r = \cdot 36.$$

TABLE II A. *Degrees taken in 1860-1874.*

	Honours.				Pass Degree.	No Degree.	Totals.
	Class I.	Class II.	Class III.	Class IV.			
Bishops	5	9	6	1	12	—	33
Deans	3	—	—	—	2	—	5
Archdeacons . .	1	8	7	2	11	1	30
Canons and Prebendaries	11	33	15	6	50	2	117
Rural Deans . .	8	17	18	12	83	2	140
Scholastic, First Class .	14	7	—	—	—	—	21
Scholastic, Second Class, and Undistinguished .	67	155	177	106	840	57	1402
Totals	109	229	223	127	998	62	1748

$$C_1 = \cdot 35, \quad C_2 = \cdot 20.$$

TABLE II B.

	Honours, Classes I., II., III. and IV.	Pass Degree or No Degree.	Totals.
Bishops, Deans, Archdeacons, Canons, Prebendaries, Rural Deans and Scholastic, First Class	183	163	346
Scholastic, Second Class, and "Undistinguished"	505	897	1402
Totals	688	1060	1748

$$r = \cdot 24.$$

TABLE II C.

	Honours, Classes I., II. and III.	Honours, Class IV. Pass Degree or No Degree.	Totals.
Bishops, Deans, Archdeacons, Canons, Prebendaries, Rural Deans and Schol- astic, First Class	162	184	346
Scholastic, Second Class, and "Undis- tinguished"	399	1003	1402
Totals	561	1187	1748

 $r = .28.$

TABLE II D.

	Honours, Classes I. and II.	Honours, Classes III. and IV. Pass Degree or No Degree.	Totals.
Bishops, Deans, Archdeacons, Canons, Prebendaries, Rural Deans and Schol- astic, First Class	116	230	346
Scholastic, Second Class, and "Undis- tinguished"	222	1180	1402
Totals	338	1410	1748

 $r = .32.$

TABLE III A.

	Honours.				Pass Degree.	No Degree.	Totals.
	Class I.	Class II.	Class III.	Class IV.			
Political Distinction (First Class)	4	2	—	—	—	—	6
Political Distinction (Second Class), High Grade in Civil Service, Indian and Colonial Judges, etc.	11	11	1	1	8	5	37
Judges of High Court or High Judicial Distinction	5	3	—	—	3	—	11
County Court Judges, Recorders, Stipendiary Magistrates, Chancellors of Dioceses and Vicars-General, etc.	5	8	11	8	32	4	68
Q.C.'s	8	2	3	3	1	—	17
First Class Educational Appointments or Literary Distinction	9	2	—	—	1	—	12
All Barristers not included in any of the above Classes	50	57	52	49	226	49	483
Totals	92	85	67	61	271	58	634

$$C_1 = \cdot 40, \quad C_2 = \cdot 34.$$

TABLE III B.

	Honours, Classes I., II., III. and IV.	Pass Degree or No Degree.	Totals.
"Distinguished"	97	54	151
"Undistinguished"	208	275	483
Totals	305	329	634

$$r = \cdot 31,$$

TABLE III C.

	Honours, Classes I, II. and III.	Honours, Class IV. Pass Degree or No Degree.	Totals.
"Distinguished"	85	66	151
"Undistinguished"	159	324	483
Totals	244	390	634

$$r = \cdot 34.$$

TABLE III D.

	Honours, Classes I. and II.	Honours, Classes III. and IV. Pass Degree or No Degree.	Totals.
"Distinguished"	70	81	151
"Undistinguished"	107	376	483
Totals	177	457	634

$$r = \cdot 38.$$

TABLE IV.

Material.	Statistical Constants.					Percentages of the Six Different Degrees of Success obtained in the Oxford Examinations.					
	Mean Square Contingency Coefficient, C_1 .	Mean Contingency Coefficient, C_2 .	Correlation Coeff. obtained by dividing Table between Fourth Class and Pass Deg.	Correlation Coeff. obtained by dividing Table between Third and Fourth Classes of Honours.	Correlation Coeff. obtained by dividing Table between Second and Third Classes of Honours.	Honours, Class I.	Honours, Class II.	Honours, Class III.	Honours, Class IV.	Pass Degree.	No Degree.
Clergy, earlier group .	·41	·27	·30	·32	·36	5·9 ± ·54 *	10·9	12·3	11·2	57·8	1·8
Clergy, later group .	·35	·20	·24	·28	·32	6·2	13·1	12·7	7·2	57·1	3·5
Bar	·40	·34	·31	·34	·38	14·5 ± ·94	13·4	10·6	9·6	42·7	9·1

* Since the number included in Table I. is not in reality 1760, but something like half this number, in calculating this probable error it has been assumed that the First Class men number 52 in 880, instead of 104 in 1760.

The difference between the percentage of First Class men among the barristers and among the clergy is $8\cdot6 \pm 1\cdot09$; as this difference is almost 8 times as great as its probable error it is almost certainly significant.

